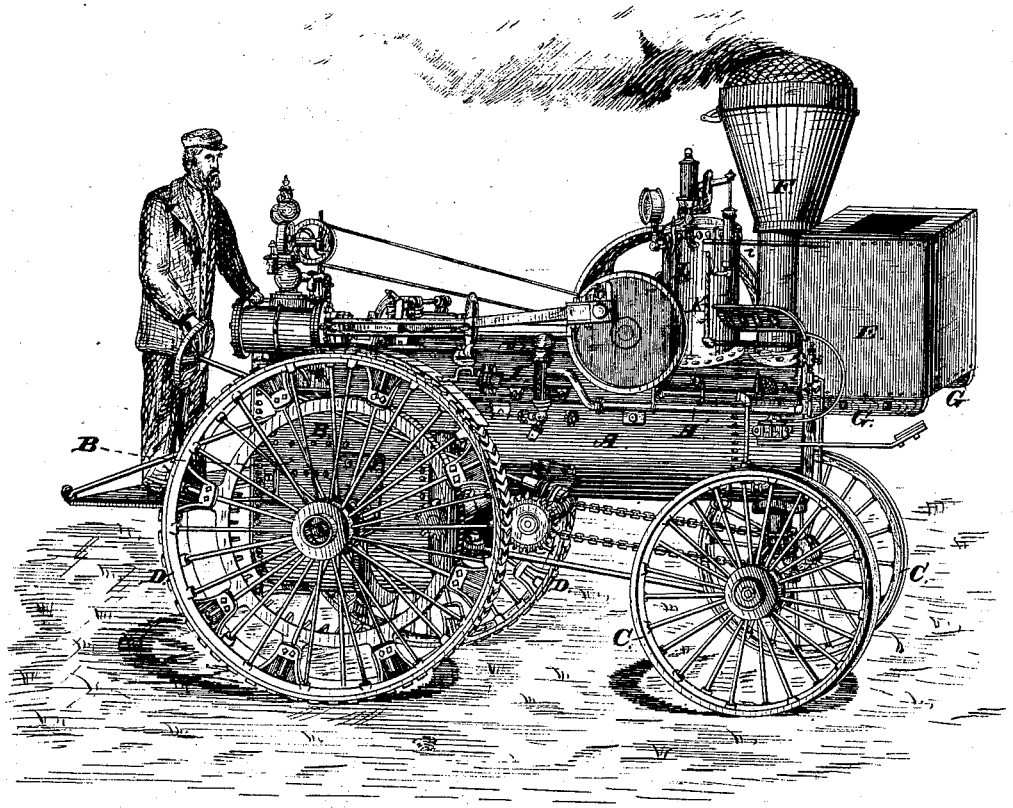
(No Model.)

H. N. LAND & H. CAMPBELL.

TRACTION ENGINE.

No. 257,444. Patented May 2, 1882.



Witnesses:
Jas. E. Hutchinson.
J. A. Rutherford.

Inventor:
Horatio N. Land and Howard Campbell,
By their Attorney,
James L. Norris.

UNITED STATES PATENT OFFICE.

HORATIO N. LAND AND HOWARD CAMPBELL, OF RICHMOND, INDIANA, ASSIGNORS TO GAAR, SCOTT & COMPANY, OF SAME PLACE.

TRACTION-ENGINE.

SPECIFICATION forming part of Letters Patent No. 257,444, dated May 2, 1882.

Application filed January 16, 1882. (No model.)

To all whom it may concern:

Be it known that we, HORATIO N. LAND and HOWARD CAMPBELL, citizens of the United States, residing at Richmond, Wayne county, Indiana, have invented new and useful Improvements in Traction-Engines, of which the following is a specification.

This invention relates to that class of traction-engines in which a water-tank is employed for supplying water to the boiler.

Our improvement relates to the construction and specific arrangement of the water-tank supports, with the tank supported in an elevated position above and in front of the front wheels of the engine and braced and connected with a pumping apparatus, as hereinafter described and claimed. The tank thus arranged will be out of the way of the operative parts of the engine, and it can be readily removed from its supports whenever such removal may be found desirable. The supports can be attached to the engine at a small cost, and can be detachably secured, so that the engine can be sold without them when they are not desired by the purchaser.

The figure in the annexed drawing represents a perspective view of the traction-engine with the water-tank arranged and supported upon the same in accordance with my improvement.

In said drawing, A indicates the boiler, having the fire-box B at its rear end.

This engine is supported upon the four wheels C D, and provided with a steering apparatus for turning the axle of the front wheels. As the construction of the operative parts of this engine is not claimed, it will not be necessary to enter into a detail description of the same.

E indicates the water-tank, which will be provided with a suitable door or inlet-cock, through which the supply of water will be admitted. This tank is located at the front end of the boiler, and, as shown, will also be just in front of the stack F.

The supports G, upon which the tank is seated, consist of horizontal arms or bars, formed separately or together and secured to the front end of the boiler. These supports can be bolted onto the boiler so that they can be removed when desired, and any suitable means can be employed for holding and steadying the tank upon its supports. An eduction-pipe, H′, leads from the tank and communicates with a suitable pumping apparatus, I, which, when operated, will supply the feed-water to the boiler. Any ordinary or suitable pumping apparatus can be employed for this purpose, and any suitable means employed for connecting the same with the operative parts of the engine and placing it under the control of the engineer, so that the water from the tank can be pumped into the boiler as frequently as may be found necessary. It will be seen that when the tank is so filled the engine can be run up to the source of supply and the tank readily filled. In addition to its use as a convenient means for supplying water to the boiler, the tank, located, as described, on the supports extending out in front of the engine, also subserves another very important purpose, for, as it is made quite large, and, when filled, will be very heavy, it will therefore serve as a weight for bearing down the front wheels of the engine, and hence will increase the traction, which is especially desirable when the engine is ascending an incline.

It will be seen that the supports or brackets are secured to the sides of the boiler at its front end, and hence can be extended back as far as desired, so as to admit of the requisite number of fastening-bolts being employed. In the present instance we have shown a brace-rod, *i*, connected with the tank and extended back to the steam-dome, to which latter it will also be secured in any suitable way. Two of these brace-rods can be employed—one on each side of the smoke-stack. A steam-pipe, K, also connects the tank with the dome L, by means of which the feed-water can be heated before it is pumped from the tank into the boiler.

As before stated, any suitable or ordinary pipe-connection between the tank and the pump can be employed, and hence a full description of the same is not considered necessary, it being within the province of any mechanic to supply a pump for pumping water from the tank into the boiler.

What we claim is—

The combination, in a traction-engine, of the boiler A, supported upon traction-wheels, with the elevated horizontal tank-supporting bars

G, bolted to the sides of the boiler at its front end above the front wheels and extending forward in advance of the front wheels, as shown, the elevated tank E, supported in position upon said bars in front of the smoke-stack and connected to the steam-dome by brace-rods *i*, and means for conducting and forcing the water from the tank into the boiler, substantially as described.

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

HORATIO NELSON LAND.
HOWARD CAMPBELL.

Witnesses:
JAMES L. NORRIS,
VINTON COOMBS.